



1094-1-0244IV Substitute Sequence Listing April 2008 AS FILED.txt

SEQUENCE LISTING

<110> Marchionni, Mark
Kelly, Ralph
Lorelli, Beverly
Sawyer, Douglas B.

<120> Method for Treating Congestive Heart Failure

<130> 1094-1-028DIV

<140> 10/646,268
<141> 2003-08-22

<150> 09/298,121
<151> 1999-04-23

<160> 14

<170> FastSEQ for windows version 4.0

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<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

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25

<210> 2
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

25

<210> 3
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide

25

<210> 4
<211> 24
<212> DNA
<213> Artificial Sequence

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<220>
<223> Synthetic Oligonucleotide

<400> 4
tcctacacac tgacacttgc tctt 24

<210> 5
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide

<400> 5
aattcaccca tcagagtgc gtttgg 26

<210> 6
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide

<400> 6
tcctgcagggt agtctgggtg ctg 23

<210> 7
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide

<400> 7
gctggctccg atgtatggta tggt 24

<210> 8
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide

<400> 8
gttctctgcc gtaggtgtcc cttt 24

<210> 9
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide

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<400> 9
gcatcactgg ctgattctgg ag

22

<210> 10
<211> 22
<212> DNA
<213> Artificial Sequence<220>
<223> Synthetic Oligonucleotide<400> 10
cacatgccgg ttatggtcag ca

22

<210> 11
<211> 754
<212> PRT
<213> Rattus norvegicus

<400> 11			
Met Arg Arg Asp Pro Ala Pro G _{ly} Phe Ser Met Leu Leu Phe G _{ly} Val			
1	5	10	15
Ser Leu Ala Cys Tyr Ser Pro Ser Leu Lys Ser val Gln Asp Gln Ala			
20	25	30	
Tyr Lys Ala Pro Val val Val Glu G _{ly} Lys Val Gln G _{ly} Leu Ala Pro			
35	40	45	
Ala G _{ly} G _{ly} Ser Ser Ser Asn Ser Thr Arg Glu Pro Pro Ala Ser G _{ly}			
50	55	60	
Arg Val Ala Leu Val Lys Val Leu Asp Lys Trp Pro Leu Arg Ser G _{ly}			
65	70	75	80
Gly Leu Gln Arg Glu Gln Val Ile Ser Val G _{ly} Ser Cys Ala Pro Leu			
85	90	95	
Glu Arg Asn Gln Arg Tyr Ile Phe Phe Leu Glu Pro Thr Glu Gln Pro			
100	105	110	
Leu Val Phe Lys Thr Ala Phe Ala Pro Val Asp Pro Asn G _{ly} Lys Asn			
115	120	125	
Ile Lys Lys Glu Val G _{ly} Lys Ile Leu Cys Thr Asp Cys Ala Thr Arg			
130	135	140	
Pro Lys Leu Lys Lys Met Lys Ser Gln Thr G _{ly} Glu Val G _{ly} Glu Lys			
145	150	155	160
Gln Ser Leu Lys Cys Glu Ala Ala Ala G _{ly} Asn Pro Gln Pro Ser Tyr			
165	170	175	
Arg Trp Phe Lys Asp G _{ly} Lys Glu Leu Asn Arg Ser Arg Asp Ile Arg			
180	185	190	
Ile Lys Tyr G _{ly} Asn G _{ly} Arg Lys Asn Ser Arg Leu Gln Phe Asn Lys			
195	200	205	
Val Lys Val Glu Asp Ala G _{ly} Glu Tyr Val Cys Glu Ala Glu Asn Ile			
210	215	220	
Leu G _{ly} Lys Asp Thr Val Arg G _{ly} Arg Leu His Val Asn Ser Val Ser			
225	230	235	240
Thr Thr Leu Ser Ser Trp Ser G _{ly} His Ala Arg Lys Cys Asn G _{ly} Thr			
245	250	255	
Ala Lys Ser Tyr Cys Val Asn G _{ly} G _{ly} Val Cys Tyr Tyr Ile Glu G _{ly}			
260	265	270	
Ile Asn Gln Leu Ser Cys Lys Cys Pro Val G _{ly} Tyr Thr G _{ly} Asp Arg			
275	280	285	
Cys Gln Gln Phe Ala Met Val Asn Phe Ser Lys His Leu G _{ly} Phe Glu			
290	295	300	
Leu Lys Glu Ala Glu Glu Leu Tyr Gln Lys Arg Val Leu Thr Ile Thr			
305	310	315	320
Gly Ile Cys Val Ala Leu Leu Val Val G _{ly} Ile Val Cys Val Val Ala			

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325 330 335
Tyr Cys Lys Thr Lys Lys Gln Arg Arg Gln Met His His His Leu Arg
340 345 350
Gln Asn Met Cys Pro Ala His Gln Asn Arg Ser Leu Ala Asn Gly Pro
355 360 365
Ser His Pro Arg Leu Asp Pro Glu Glu Ile Gln Met Ala Asp Tyr Ile
370 375 380
Ser Lys Asn Val Pro Ala Thr Asp His Val Ile Arg Arg Glu Ala Glu
385 390 395 400
Thr Thr Phe Ser Gly Ser His Ser Cys Ser Pro Ser His His Cys Ser
405 410 415
Thr Ala Thr Pro Thr Ser Ser His Arg His Glu Ser His Thr Trp Ser
420 425 430
Leu Glu Arg Ser Glu Ser Leu Thr Ser Asp Ser Gln Ser Gly Ile Met
435 440 445
Leu Ser Ser Val Gly Thr Ser Lys Cys Asn Ser Pro Ala Cys Val Glu
450 455 460
Ala Arg Ala Arg Arg Ala Ala Ala Tyr Ser Gln Glu Glu Arg Arg Arg
465 470 475 480
Ala Ala Met Pro Pro Tyr His Asp Ser Ile Asp Ser Leu Arg Asp Ser
485 490 495
Pro His Ser Glu Arg Tyr Val Ser Ala Leu Thr Thr Pro Ala Arg Leu
500 505 510
Ser Pro Val Asp Phe His Tyr Ser Leu Ala Thr Gln Val Pro Thr Phe
515 520 525
Glu Ile Thr Ser Pro Asn Ser Ala His Ala Val Ser Leu Pro Pro Ala
530 535 540
Ala Pro Ile Ser Tyr Arg Leu Ala Glu Gln Gln Pro Leu Leu Gly His
545 550 555 560
Pro Ala Pro Pro Gly Pro Gly Pro Gly Ala Asp Met Gln Arg
565 570 575
Ser Tyr Asp Ser Tyr Tyr Tyr Pro Ala Ala Gly Pro Gly Pro Arg Arg
580 585 590
Gly Ala Cys Ala Leu Gly Gly Ser Leu Gly Ser Leu Pro Ala Ser Pro
595 600 605
Phe His Ile Pro Glu Asp Asp Glu Tyr Glu Thr Thr Gln Glu Cys Ala
610 615 620
Pro Pro Pro Pro Pro Arg Pro Arg Thr Arg Gly Ala Ser Arg Arg Thr
625 630 635 640
Ser Ala Gly Pro Arg Arg Trp Arg Arg Ser Arg Leu Asn Gly Leu Ala
645 650 655
Ala Gln Arg Ala Arg Ala Ala Arg Asp Ser Leu Ser Leu Ser Ser Gly
660 665 670
Ser Gly Cys Gly Ser Ala Ser Ala Ser Asp Asp Asp Ala Asp Asp Ala
675 680 685
Asp Gly Ala Leu Ala Ala Glu Ser Thr Pro Phe Leu Gly Leu Arg Ala
690 695 700
Ala His Asp Ala Leu Arg Ser Asp Ser Pro Pro Leu Cys Pro Ala Ala
705 710 715 720
Asp Ser Arg Thr Tyr Tyr Ser Leu Asp Ser His Ser Thr Arg Ala Ser
725 730 735
Ser Arg His Ser Arg Gly Pro Pro Thr Arg Ala Lys Gln Asp Ser Gly
740 745 750
Pro Leu

<210> 12
<211> 330
<212> PRT
<213> Rattus norvegicus

<400> 12

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Met Arg Arg Asp Pro Ala Pro Gly Phe Ser Met Leu Leu Phe Gly Val
1 5 10 15
Ser Leu Ala Cys Tyr Ser Pro Ser Leu Lys Ser Val Gln Asp Gln Ala
20 25 30
Tyr Lys Ala Pro Val Val Val Glu Gly Lys Val Gln Gly Leu Ala Pro
35 40 45
Ala Gly Gly Ser Ser Ser Asn Ser Thr Arg Glu Pro Pro Ala Ser Gly
50 55 60
Arg Val Ala Leu Val Lys Val Leu Asp Lys Trp Pro Leu Arg Ser Gly
65 70 75 80
Gly Leu Gln Arg Glu Gln Val Ile Ser Val Gly Ser Cys Ala Pro Leu
85 90 95
Glu Arg Asn Gln Arg Tyr Ile Phe Phe Leu Glu Pro Thr Glu Gln Pro
100 105 110
Leu Val Phe Lys Thr Ala Phe Ala Pro Val Asp Pro Asn Gly Lys Asn
115 120 125
Ile Lys Lys Glu Val Gly Lys Ile Leu Cys Thr Asp Cys Ala Thr Arg
130 135 140
Pro Lys Leu Lys Lys Met Lys Ser Gln Thr Gly Glu Val Gly Glu Lys
145 150 155 160
Gln Ser Leu Lys Cys Glu Ala Ala Ala Gly Asn Pro Gln Pro Ser Tyr
165 170 175
Arg Trp Phe Lys Asp Gly Lys Glu Leu Asn Arg Ser Arg Asp Ile Arg
180 185 190
Ile Lys Tyr Gly Asn Gly Arg Lys Asn Ser Arg Leu Gln Phe Asn Lys
195 200 205
Val Lys Val Glu Asp Ala Gly Glu Tyr Val Cys Glu Ala Glu Asn Ile
210 215 220
Leu Gly Lys Asp Thr Val Arg Gly Arg Leu His Val Asn Ser Val Ser
225 230 235 240
Thr Thr Leu Ser Ser Trp Ser Gly His Ala Arg Lys Cys Asn Glu Thr
245 250 255
Ala Lys Ser Tyr Cys Val Asn Gly Val Cys Tyr Tyr Ile Glu Gly
260 265 270
Ile Asn Gln Leu Ser Cys Lys Cys Pro Asn Gly Phe Phe Gly Gln Arg
275 280 285
Cys Leu Glu Lys Leu Pro Leu Arg Leu Tyr Met Pro Asp Pro Lys Gln
290 295 300
Ser Val Leu Trp Asp Thr Pro Gly Thr Gly Val Ser Ser Ser Gln Trp
305 310 315 320
Ser Thr Ser Pro Ser Thr Leu Asp Leu Asn
325 330

<210> 13

<211> 182

<212> PRT

<213> Homo sapiens

<400> 13

Arg Gly Glu Gly Ile Ser Phe Pro Ser Lys Leu Gln Gly His Cys Gly
1 5 10 15
Ser Val Glu Arg Gly Asn Arg Trp Val Thr Ala Gly Glu Pro Gln Pro
20 25 30
Ala Leu Ala His Ala Ser Pro Pro Phe Ile Pro Ser Leu Thr Arg Lys
35 40 45
Asn Ser Arg Leu Gln Phe Asn Lys Val Lys Val Glu Asp Ala Gly Glu
50 55 60
Tyr Val Cys Glu Ala Glu Asn Ile Leu Gly Lys Asp Thr Val Arg Gly
65 70 75 80
Arg Leu Tyr Val Asn Ser Val Ser Thr Thr Leu Ser Ser Trp Ser Gly
85 90 95
His Ala Arg Lys Cys Asn Glu Thr Ala Lys Ser Tyr Cys Val Asn Gly

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	100	105	110												
Gly	Val	Cys	Tyr	Tyr	Ile	Glu	Gly	Ile	Asn	Gln	Leu	Ser	Cys	Lys	Cys
115		120		125											
Pro	Asn	Gly	Phe	Phe	Gly	Gln	Arg	Cys	Leu	Glu	Lys	Leu	Pro	Leu	Arg
130		135		140											
Leu	Tyr	Met	Pro	Asp	Pro	Lys	Gln	Ser	Val	Leu	Trp	Asp	Thr	Pro	Gly
145		150		155		160									
Thr	Gly	Val	Ser	Ser	Ser	Gln	Trp	Ser	Thr	Ser	Pro	Lys	Pro	Arg	Ser
165		170		175											
Cys	Thr	Arg	Arg	Gly	Ser										
180															

<210> 14

<211> 3020

<212> DNA

<213> Homo sapiens

<400> 14

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taagaggc	taacgttac	ctgttccgg	ttttccagc	ggctctgtt	cccctccaa	180
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tgctcagc	tgccgccc	gccactggag	aagggtcgt	gcagcagcta	cagcagcagc	300
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agcagcagga	gcagcagcaa	caacagcagc	atctctcg	ccgctgcgc	cccagagccg	420
cggccgcagc	aacagccca	gccccgcagc	ccgcagccc	ggagagccgc	cgcccggtcg	480
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gtgccctcg	aaaggaaacc	ggcgtacatc	tttttctgg	agccacagga	acagcccta	840
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ccgcggccgc	ggacctgc	gctcgccggc	agcctggca	gcctgcctgc	cagccccc	2340
cgcatacccg	aggacgacg	gtacgagacc	acgcaggagt	gcgcgc	gcccgcgc	2400
ccggccgcgc	cgcgccgtgc	gtcccgagg	acgtcgccgg	ggccccggc	ctggcgccgc	2460
tcgcgcctca	acgggctggc	ggcgcagcgc	gcacggccgg	cgagggactc	gctgtcgctg	2520
agcagcggct	cgggccggcgg	ctcagcctcg	gcgtcgac	acgacgcgg	cgacgcggac	2580
ggggcgctgg	cgggccgagag	cacaccc	ctggccctgc	gtggggcgca	cgacgcgc	2640

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gactcggcgc cactctaggg ccccgccgcg cgccccctccg ccccgccccgc cccactatct 2820
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atcctgattt acagcttcgg 3020